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(54) Title: COLLECTIVE NOTIFICATION OF NODE RESET TO SUBSET OF CONNECTIONS IN RADIO ACCESS NETWORK

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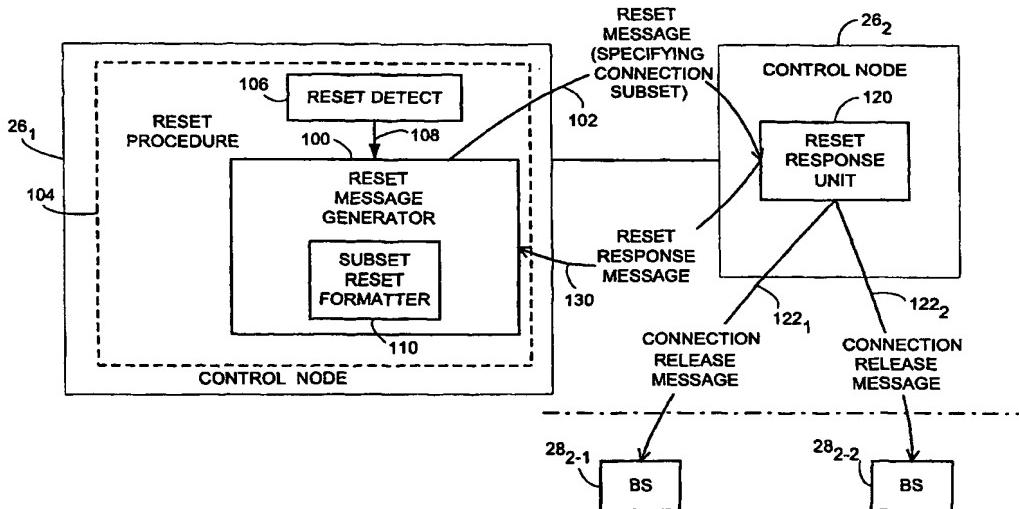
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(57) Abstract: Upon reset of a control node (261) of a radio access network (24) which controls connections with user equipment units (30) in a connected mode, a message (102) indicative of the reset is sent between nodes of the radio access network. The message results from occurrence of a reset procedure (104) affecting the control node. The message includes an element which collectively indicates that a subset of the connections (i.e., not all of the connections) controlled by the control node are to be released. Inclusion in the message of the element, also known as the subset reset element, facilitates return to an idle mode of the user equipment units involved in the subset of the connections. By virtue of inclusion of the subset reset element, the message need not go to one extreme of listing individually each of the connections affected by the reset, nor to another extreme of specifying all connections controlled by the control node.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/SE 03/01708

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04Q7/24 H04Q7/34

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H04Q H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category ° | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-------------------------|
| X | US 2001/034228 A1 (LEHTOVIRTA VESA ET AL) 25 October 2001 (2001-10-25) paragraph [0018] - paragraph [0022] paragraph [0042] - paragraph [0045] paragraph [0049] paragraph [0053] abstract; figures 1,5 --- US 2002/160785 A1 (VAN DER VELDE HIMKE ET AL) 31 October 2002 (2002-10-31) paragraph [0039] - paragraph [0042]; figure 4 ----- | 1-3,5, 7-9, 11-19 |
| A | | 4,6,9,18 |



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the International filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the International filing date but later than the priority date claimed

"T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed Invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed Invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

11 February 2004

Date of mailing of the international search report

12 05. 2004

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/SE 03/01708

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-19.

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-19

Claims 1-19 relates to a node, method or message, respectively, which are adapted for the processing of, and distribution of an indication to a subset of connections to be released in case of a reset procedure in a node associated with a radio access network. Consequently, these claims describe how effected connections are to be released as a consequence of a reset of a node in the network. The indication is realised by way of assembling a message which comprises an element which collectively indicates the subset of connections to be released.

2. Claims: 20-23

Claims 20-23 describe a node and a method for operating the node, wherein it is described how a new connection is initiated by way of assigning the connection to a specific process and to a S-RNTI value. These claims do not mention a procedure involving the release of a connection, nor do the claims mention a reset procedure.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/SE 03/01708

| Patent document cited in search report | Publication date | | Patent family member(s) | | Publication date |
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| US 2001034228 | A1 | 25-10-2001 | AU EP WO TW | 3627601 A 1256247 A1 0162030 A1 502546 B | 27-08-2001 13-11-2002 23-08-2001 11-09-2002 |
| US 2002160785 | A1 | 31-10-2002 | EP WO TW | 1386513 A2 02085060 A2 549001 B | 04-02-2004 24-10-2002 21-08-2003 |